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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,264	08/19/2003	Ravi Ramaswami	10981988-3	4670

7590 06/10/2004  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

MOUTTET, BLAISE L

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/643,264

Applicant(s)

RAMASWAMI ET AL.

Examiner

Blaise L Mouttet

Art Unit

2853

*R*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5 and 7 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugitani et al. US 4,558,333.

Sugitani et al. discloses a method of making a part of a droplet plate, which part mounts to a substrate (1) that carries a heat transducer (2) and defines both a firing chamber to surround the transducer (2) and a nozzle (6P) through which liquid in the chamber may pass from the chamber (figure 7B), the method comprising the steps of:

forming the part from a single dielectric material (dry film photoresist) by depositing a first layer (3) of the dielectric material (figure 2B, column 1, lines 1-13);

shaping the firing chamber in the first layer (figures 3 and 4, column 4, lines 14-53);

depositing a second layer (5) of the single type (dry film photoresist) of dielectric material (figure 5, column 4, lines 54-68); and

making the nozzle in the second layer (figure 6, column 5, lines 10-47).

Sugitani et al. discloses, regarding claim 7, simultaneously exposing the first and second layers (204, 210) by a solvent (column 5, lines 29-43).

***Allowable Subject Matter***

2. Claims 2-4, 6 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Upon review of the argument's presented by applicant on May 27, 2004 regarding the 35 USC 103 rejection of claims 2-4, 6 and 8 the examiner agrees that the combination would not have been obvious at the time of the invention in view of the applied prior art. Specifically while Sugitani et al. provides a solution of the sagging problem for photoresist material deposited by pressure adhesion (i.e. reducing the applied pressure) the presented solution is incompatible with a PECVD deposition method or with the cited materials as the dielectric material.

The rejection of claim 7 was inadvertently included in the 35 USC 103 rejection in the prior office action however the rejection of claim 7 is presently rejected solely based on Sugitani et al.

***Response to Arguments***

3. Applicant's arguments filed May 27, 2004 have been fully considered but they are not persuasive.

The applicant has argued, regarding claims 1 and 5, that the applied prior art has failed to meet the limitation of depositing a second layer of the first

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dielectric material as presented in the pending claims because lamination as described by the applied art is different from deposition. The examiner disagrees because lamination is defined as the deposition of thin films or layers (see dictionary) and thus the scope of deposition would include lamination. The examiner notes that "depositing" as used in the claims is seen to be of the same scope of "placing" or "applying" since this is the ordinary definition as used by one of ordinary skill in the art and applicant's specification does not exclude this interpretation.

### ***Contact Information***

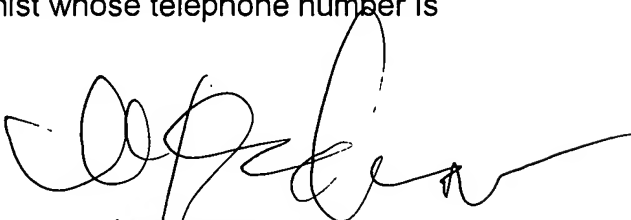
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet June 7, 2004

Bm 6/7/2004



LAMSON NGUYEN  
PRIMARY EXAMINER  
06/09/04